## PATENT COOPERATION TREATY

## **PCT**

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| Applicant's or agent's file reference<br>P26788A PCT  |  | FOR FURTHER ACTION   | see Notification of Transmittal of International Search<br>Report (Form PCT/ISA/220) as well as, where applicable,<br>item 5 below. |   |  |  |  |
|---|--|--|---|---|--|--|--|
| International application No.<br>PCT/US03/22893   |  | International filing date (day/month/year) 21 July 2003 (21.07.2003) |   | (Earliest) Priority Date (day/month/year) 08 July 2003 (08.07.2003)                 |  |  |  |
| Applicant RUTGERS, THE STATE UNIVERSITY   |  |  |   |   |  |  |  |
| This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.  This international search report consists of a total of |  |  |   |   |  |  |  |
| Basis of the Report     a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.   |  |  |   |   |  |  |  |
| b.  | the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).                    |  |   |   |  |  |  |
| [   | contained in the internationa  | l application in written form.                                       |   | *   |  |  |  |
| اِ  | filed together with the international application in computer readable form.   |  |   |   |  |  |  |
| Ĺ   | furnished subsequently to the  | is Authority in written form.  |   |   |  |  |  |
|   | furnished subsequently to this Authority in computer readable form.  |  |   |   |  |  |  |
|   | the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. |  |   |   |  |  |  |
| [   | the statement that the information been furnished.   | nation recorded in computer readable                                 | form is id  | dentical to the written sequence listing has  |  |  |  |
| 2.  | Certain claims were found  | unsearchable (See Box I).  |   |   |  |  |  |
| 3.  |  | Unity of invention is lacking (See Box II).                          |   |   |  |  |  |
| 4. V  |  |  |   |   |  |  |  |
| L<br>L  | the text is approved as subm   | •                              |   | İ   |  |  |  |
| L   | the text has been established  | by this Authority to read as follows                                 | :   |   |  |  |  |
| 5. V  | With regard to the abstract,   |  |   |   |  |  |  |
|   | the text is approved as subm   | itted by the applicant.  |   |   |  |  |  |
| L   |  |  |   | as it appears in Box III. The applicant may, rt, submit comments to this Authority. |  |  |  |
| 6. <u>T</u>   | The figure of the drawings to be published with the abstract is Figure No.   |  |   |   |  |  |  |
| L   | as suggested by the applicant  |  |   | None of the figures   |  |  |  |
|   | because the applicant failed t   | o suggest a figure.  |   |   |  |  |  |
| . [   | because this figure better cha   | tracterizes the invention.   |   |   |  |  |  |
|   |  |  |   |   |  |  |  |

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/22893

| A. CLASSIFICATION OF SUBJECT MATTER  IPC(7) : C08K 7/04, 3/40, 5/01; C08J 11/04; B32B 17/04  US CL : 523/204, 207, 217; 264/45.3, 172.12, 210.6  According to International Patent Classification (IPC) or to both national classification and IPC |  |                                  |  |  |  |  |  |
|--|--|----------------------------------|--|--|--|--|--|
| B. FIELDS SEARCHED   |  |                                  |  |  |  |  |  |
| Minimum documentation searched (classification system followed by classification symbols) U.S.: 523/204, 207, 217; 264/45.3, 172.12, 210.6   |  |                                  |  |  |  |  |  |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  |  |                                  |  |  |  |  |  |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet   |  |                                  |  |  |  |  |  |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT   |  |                                  |  |  |  |  |  |
| Category * Citation of document, with indication, where  | appropriate, of the relevant passages  | Relevant to claim No.            |  |  |  |  |  |
| X US 5,789,477 A (NOSKER et al) 04 August 1998 (column 3, lines 20, 44, column 4, lines 53, 59-61, X US 6,191,228 A (NOSKER et al ) 20 February 200  | 04.08.1998), column 2, lines 10-11, 19, column 6, lines 38, 53-62.   | 1-8 and 17-20                    |  |  |  |  |  |
| 50-53, column 8, lines 22-24.  |  |                                  |  |  |  |  |  |
| Further documents are listed in the continuation of Box C.  * Special categories of cited documents:   | See patent family annex.  "T" later document published after the inter   | maticual Elima data an maiorita  |  |  |  |  |  |
| "A" document defining the general state of the art which is not considered to be of particular relevance   | date and not in conflict with the applica<br>principle or theory underlying the inver                                      | tion but cited to understand the |  |  |  |  |  |
| "E" earlier application or patent published on or after the international filing date  | "X" document of particular relevance; the closed considered novel or cannot be considered when the document is taken alone |                                  |  |  |  |  |  |
| "L" document which may throw doubts on priority claim(s) or which is cited to<br>establish the publication date of another citation or other special reason (as<br>specified)  | "Y" document of particular relevance; the cleaning to involve an inventive step combined with one or more other such       | when the document is             |  |  |  |  |  |
| "O" document referring to an oral disclosure, use, exhibition or other means   | being obvious to a person skilled in the   |                                  |  |  |  |  |  |
| "P" document published prior to the international filing date but later than the priority date claimed   | "&" document member of the same patent fa  |                                  |  |  |  |  |  |
| Date of the actual completion of the international search  Date of mailing of the international search report  |  |                                  |  |  |  |  |  |
| 16 January 2004 (16.01.2004)   |  |                                  |  |  |  |  |  |
| Name and mailing address of the ISA/US  Mail Stop PCT, Attn: ISA/US  Commissioner for Patents P.O. Box 1450  Alexandria, Virginia 22313-1450  Facsimile No. (703) 305-3230   | Telephone No. 703-308-066  |                                  |  |  |  |  |  |

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| G d d d AB FIELD OF AB GYPTE V  |  |
| Continuation of B. FIELDS SEARCHED Item 3:  |  |
| Electronic Databases Searched by WEST: composite and plastic structure, high den or coated glass fiber, compression modulus | sity polyolefin or HDPE, polystyrene or coated fiber |
| or coated glass fiber, compression modulus  |  |
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| Form PCT/ISA/210 (second sheet) (July 1998)   |  |